

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of the Claims

1-20. (Canceled)

21. (Currently amended) A method for improving contractile function of myocardial tissue that has suffered ischemic damage, comprising the steps of:
identifying a damaged portion of myocardial tissue[[.]];
providing a catheter having a distal end adapted for delivering therapeutic agents into myocardial tissue, introducing said catheter into an anatomic structure[[.]];
guiding said catheter through the anatomic structure to reach a surface of the heart[[.]];
disposing said distal end against the surface of the heart[[.]]; and
sequentially-delivering at least one pellet to the damaged portion of myocardial tissue, the at least one pellet having at least two therapeutic agents at least two therapeutic agents through the surface of the heart to the damaged myocardial tissue, wherein the first therapeutic agent contains at least one angiogenic factor, and wherein the second therapeutic agent contains implantable cells adapted for restoration of contractile function.

22. (Currently amended) A method for improving contractile function of myocardial tissue that has suffered ischemic damage, comprising the steps of:
identifying a damaged portion of myocardial tissue[[.]]; and
accessing said damaged portion of myocardial tissue, and delivering at least one pellet to the damaged portion of myocardial tissue, the at least one pellet having at least two

therapeutic agents, at least two therapeutic agents to the damaged portion of myocardial tissue, wherein the first therapeutic agent contains at least one agent capable of promoting angiogenesis, wherein the second therapeutic agent contains cells adapted for implantation in said myocardial tissue, and whereby the first therapeutic agent evokes a local angiogenic response in the damaged myocardial tissue and the second therapeutic agent introduces cells adapted for implantation in said myocardial tissue, said cells capable of regenerating contractile muscle tissue to achieve improved contractile function.

23. (Original) A method according to claim 22, wherein identifying a damaged portion of tissue includes identifying an infarcted portion of myocardial tissue.

24. (Original) A method according to claim 22, wherein delivering a therapeutic agent includes delivering a therapeutic agent being capable of mitigating tissue-level preconditions for reperfusion injury.

25. (Original) A method according to claim 22, including the steps of releasing at least one angiogenic factor from the first therapeutic agent, and releasing the cells adapted for implantation from the second therapeutic agent after the release of the angiogenic factor.

26. (Original) A method according to claim 22, wherein at least one therapeutic agent includes a time release delivery vehicle.

27. (Original) A method according to claim 22, wherein said cells adapted for implantation in the myocardial tissue include skeletal myoblast-derived cells.

28. (Original) A method according to claim 22, wherein said cells adapted for implantation in the myocardial tissue include cardiomyocytes.

29. (Original) A method according to claim 22, wherein said cells adapted for implantation in the myocardial tissue include precursors to cardiomyocytes.

30. (Original) A method according to claim 22, wherein said cells adapted for implantation in the myocardial tissue include genetically modified fibroblasts.

31. (Original) A method according to claim 22, wherein said cells adapted for implantation in the myocardial tissue include bone marrow stromal cells.

32-41. (Canceled)